



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/160,503 09/24/98 CAPPELS R P2267/PA1021

GREGORY J KOERNER
CARR & FERRELL
2225 EAST BAYSHORE ROAD
SUITE 200
PALO ALTO CA 94303

LM02/0727

EXAMINER

JOSEPH, T

ART UNIT

PAPER NUMBER

2773

DATE MAILED:

07/27/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/160,503

Applicant(s)
Cappels Et. Al.

Examiner
Thomas Joseph

Group Art Unit
2773



☒ Responsive to communication(s) filed on Jun 14, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-47 is/are pending in the application.
Of the above, claim(s) 13-20 and 33-40 is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-12, 21-32, and 41-47 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 7

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2773

DETAILED ACTION

1. Applicant's arguments filed on 6-14-2000 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The analysis under 35 U.S.C. 112, first paragraph, requires that the scope of protection sought be supported by the specification disclosure. The pertinent inquiries include determining (1) whether the subject matter defined in the claims is described in the specification and (2) whether the specification disclosure as a whole is to enable one skilled in the art to make and use the claimed invention.

3. Claims 44-47 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The "invention" for the purpose of the first paragraph analysis is defined by the claims. The description requirement is simply that the claimed subject matter must be described in the specification. The function of the description requirement is to ensure that the applicant had possession of the invention on the filing date of the application. The application need not describe the claim limitations exactly, but must be sufficiently clear for one of ordinary skill in the art to

Art Unit: 2773

recognized that the applicant's invention encompasses the recited limitations. The description requirement is not met if the application does not expressly or inherently disclose the claimed invention.

Specification does not explicitly describe nor is sufficiently clear for one of ordinary skill in art to recognize: 1) "visually indistinctive to a viewer" in claims 44-47. The description is not sufficient to understand how an object that is not changed when the object is "visually indistinctive". Claims are unclear that the one ordinarily skilled in the cannot recognize the encompassed claim limitations.

4. Claims 44-47 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The enablement requirement necessitates a determination that the disclosure contains sufficient teaching regarding the subject matter claimed as to enable one skilled in the pertinent art to make and use the claimed invention. In essence, the scope of enablement provided to one ordinarily skilled in the art by the disclosure must be commensurate with the scope of protection sought by the claims.

Currently, the most prevalent standard for measuring sufficient enablement to meet the requirements of 112 is that of "undue experimentation". The test is whether, at the time of the invention, there was sufficient working procedure for one skilled in the art to practice the claimed invention without undue experimentation. It is important to note that the test of enablement is not

Art Unit: 2773

whether any experimentation is necessary, but whether, if experimentation is necessary, is it undue. An skilled artisan is given sufficient direction or guidance in the disclosure. Moreover, the experimentation required, in addition to not being undue, must not require ingenuity beyond that expect of one of ordinary skill in the art.

Undue experimentation and ingenuity would be required beyond one ordinarily skilled in the art to practice: 1) "viusally indistinctive to a viewer" in claim 44-47. Undue experimentation would be needed to make an object that is not changed when the object is "visually indistinctive".

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3, 4, 21, 23, 24, 44, and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by McLaughlin (pat. # 5,570,108).

Claims 1 is rejected. McLaughlin teaches a window which can also be interpreted as the presence of a corresponding window manager in a video signal (fig. 1-2; col. 6, lines 47 - 69). McLaughlin teaches use of buttons for activating window driven functions (fig. 1-2; col. 6, lines 47 - 69); the use of such buttons translates into a type of window manager for running programs. Any button causes a change in the video display thus a corresponding window manager is present in the video signal. McLaughlin teaches a processor which acts as a window decoder for

Art Unit: 2773

extracting spacial window information from said video signal and responsively generating a display control signal (fig. 1, #16, #16e, #11); any type of circuitry which translates input entered into computer readable signals then back to human readable output is considered a window decoder.

Claims 3 is rejected. McLaughlin teaches an apparatus which includes the window decoder implemented as an application-specific integrated circuit (fig. 1).

Claims 4 is rejected. McLaughlin teaches an apparatus containing a target area in said special windows to be specially processed in response to said display control signal and the presence of a window which can be interpreted as the presence of a video interface for transmitting data including said special window information to said display (fig. 2; col. 2, lines 45 - 65).

Claim 21 is rejected. McLaughlin teaches a window on a screen which can be interpreted as the embedding of special window information in a video signal (fig. 2). McLaughlin teaches the presence of icons on the said window which can be interpreted as a method for extracting said special window information from said video signal using a window decoder (fig. 2). McLaughlin teaches generating display control signals in response to said window information to enable different processing of said special windows when said icons is interpreted as the said special windows in said display (fig. 2).

Claim 23 is rejected. McLaughlin discloses the user of a window requiring a program implemented on a processing device for use with a specific set of applications which can be

Art Unit: 2773

interpreted as window decoder that is implemented as an application-specific integrated circuit (fig. 2).

Claim 24 is rejected. McLaughlin discloses a window containing on a video screen containing specific information which can be interpreted as a method specially processing a target area in said special windows in response to said display control signal and transmitting data including said special window information to said display using a video interface (fig. 2).

Claim 44 is rejected. McLaughlin discloses special window information that is embedded in the video signal so as to be visually indistinctive to a viewer (fig. 2).

Claim 45 is rejected. McLaughlin discloses special window information that is embedded in the video signal so as to be visually indistinctive to a viewer (fig. 2).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) a patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaughlin (pat. # 5,570,108) as applied to claim 4 above, and further in view of Fisher (pat. 5,903,267).

Claims 2 and 22 is rejected. McLaughlin teaches the use of a window (fig. 2). McLaughlin fails to teach that a window manager is an operating system. Fisher teaches that the

Art Unit: 2773

windows control programs known as OS/2 and windows which can be interpreted as windows managers are also operating systems (col 3, lines 53 -57). It would be obvious to one with ordinary skill in the art at the time of the invention to provide a window manager that is included in the operating system for the simplifying of application software development because doing so allows software writers to dedicate their time performing only those tasks which involve programming customization instead of learning to operate package software programs. The purpose of the windowing environment is to provide an environment where users including programmers can operate their computer systems using familiar tools. The use of such familiar tools allows computer users to spend more time performing productive tasks and less time learning the use of software tools that are considered tedious to operate.

9. Claim 5 - 10, 12, 25-30, 32, 41-43 and 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaughlin (pat. # 5,570,108) as applied to claim 4 above, and further in view of Shafer (pat. # 5,386,247).

Claims 5 is rejected. McLaughlin fails to teach using an RGB matrix which can be interpreted as presence of pixels in a display. Shafer teaches an RGB matrix which can be interpreted as presence of pixels in a display (fig. 4, #102). Shafer teaches a graph which can be interpreted as a first color signal serving as a video clock signal for said special display information (col. 1, lines 45 - 60). Shafer teaches a second color signal including said display information (col. 1, lines 45 - 60). Shafer teaches providing at least two RGB color signals, an auxiliary RGB signal and an main RGB signal (fig. 4). It would have been obvious to one with ordinary skill in the art at the time of the invention to provide two or three RGB signals as taught

Art Unit: 2773

by Shafer in the window decoder taught by McLaughlin because doing so enhances the ability for a display system to output a multiple number of view ports with greater accuracy. Any window system requires a means for displaying human readable information. The system taught by Shafer is a method for displaying any information which can include special window information to an output screen.

Claims 6 is rejected. McLaughlin teaches the use of a special window which can be interpreted as a method for reading key signals including a pattern of bits of said special window (fig. 2). McLaughlin teaches the use of a window which can be understood as the presence of a software program for interpreting as information for encoding a target area position (fig. 2). McLaughlin teaches displaying a window on a display device which can be interpreted as corresponding the target position to a pattern of said pixels depicted on said display device (fig. 2).

Claims 7 is rejected. Shafer teaches the use of a pixel pair which uses an RGB matrix in a display system wherein each member pixel pairs being proximately located, said pixel pairs being colored according to said first color signal, said second color signal, and said third color signal in an additively complementary manner to visually approximate a single pixel of a mixed color (fig. 4).

Claims 8 is rejected. McLaughlin teaches a start sequence indicating a beginning of said key signals (fig. 6, #62). McLaughlin teaches a code sequence distinguishing said key signals from said data (fig. 6-7). McLaughlin teaches a horizontal and vertical offset sequence indicating a boundary of said target area relative to a horizontal position of said key signals (fig. 7, #101-

Art Unit: 2773

104). McLaughlin teaches a CRC checksum verifying said horizontal offset sequence and said vertical offset sequence (fig. 7, #96). McLaughlin teaches a stop sequence indicating an end of said key signals (fig. 61, #61).

Claims 9 is rejected. McLaughlin teaches a nondifferential key signal data indicating said start sequences and said stop sequences (fig. 6, #61-62). McLaughlin teaches a differential key signal data indicating remaining components of said key signals (fig. 6).

Claims 10 is rejected. McLaughlin teaches the use number sequences associated with various windows indicating a number of special windows (fig. 3 - 6).

Claims 12 is rejected. McLaughlin teaches a series of button inputs which can be interpreted as a selection sequence indicating a selection from among a plurality of available special processes (fig. 6).

Claim 25 is rejected. McLaughlin teaches a method for processing color and raster data which can be interpreted as a method for depicting pixels in said display, transmitting a first color signal serving as a video clock signal for the special window information, transmitting a second color signal including special window information, and transmitting a third color signal (col. 2, lines 13 - 60). McLaughlin in view of Shafer teach the rationale of claim 25 in rejected claim 5.

Claim 26 is rejected. McLaughlin teaches the presence of a window which requires processing of a pattern of bits corresponding with pixels depicted on a display which can be interpreted as transmitting key signals including a pattern of bits of said special window information to encode a target area position and corresponding to a pattern of said pixels depicted

Art Unit: 2773

on said display (fig. 2; fig. 6). McLaughlin in view of Shafer teach the rationale of claim 26 in rejected claim 6.

Claim 27 is rejected. McLaughlin teaches a method for processing color which depicts pixel pairs on said display, each member pixel of said pixel pairs being proximately located, said pixel pairs being colored according to said first color signal, said second color signal, and third color signal in an additively complementary manner to visually approximate a single pixel of a mixed color (col. 2, lines 13 - 60). McLaughlin in view of Shafer teach the rationale of claim 27 in rejected claim 7.

Claim 28 is rejected. McLaughlin in view of Shafer teach the rationale of claim 28 in rejected claim 8.

Claim 29 is rejected. McLaughlin in view of Shafer teach the rationale of claim 29 in rejected claim 9.

Claim 30 is rejected. McLaughlin in view of Shafer teach the rationale of claim 30 in rejected claim 10.

Claim 32 is rejected. McLaughlin in view of Shafer teach the rationale of claim 32 in rejected claim 12.

Claim 41 is rejected. McLaughlin in view of Shafer teach the rationale of claim 41 in rejected claim 8.

Claim 42 is rejected. McLaughlin in view of Shafer teach the rationale of claim 42 in rejected claim 21.

Art Unit: 2773

Claim 43 is rejected. McLaughlin in view of Shafer teach the rationale of claim 43 in rejected claim 21.

Claim 46 is rejected. McLaughlin discloses special window information that is embedded in the video signal so as to be visually indistinctive to a viewer (fig. 2).

Claim 47 is rejected. McLaughlin discloses special window information that is embedded in the video signal so as to be visually indistinctive to a viewer (fig. 2).

10. Claims 11 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaughlin (pat. # 5,570,108) further in view of Shafer (pat. # 5,386,247) as applied to claims 8 and 28 above, and further in view of Priem (pat. # 4,907,174).

Claim 11 is rejected. McLaughlin further in view of Shafer fail to teach a shape sequence indicating a shape of said target area when said target area is not rectangular. Priem teaches a method or sequence of instructions which can be interpreted as indicating a shape of said target area when said target area is not rectangular (fig. 1; col. 3, lines 19 - 70). Such capability allows for selecting of icons and other graphical displays having various shapes. It would have been obvious to one with ordinary skill in the art at the time of the invention to provide a shape sequence indicating a shape of said target area when said target area is not rectangular as taught by Priem for the method for using windows as taught by McLaughlin further in view of Shafer because doing so allows the programmer to provide windows and other icons having various shapes.

Claim 31 is rejected. McLaughlin in view of Shafer in view of Priem teach the rationale of claim 31 in rejected claim 11.

Art Unit: 2773

Response to Arguments

11. Applicant's arguments filed June 14, 2000 have been fully considered; however, they have been determined not to be persuasive. The applicant has added claims 44-47 and requested reconsideration for claims 1-43. The Applicant also asks that the Examiner reconsider the restriction requirement of the first action dated 1-6-2000 and reconsider the drawing objection of the second action 3-13-2000. In this communication, the applicant gives a summary on the present invention which is a method for using linear interpolation for the shading of parametric bi-cubic patches. The applicant also corrected minor typographical errors in the specification without adding new matter.

The Examiner acknowledges the Information Disclosure Statement filed June 14, 2000.

The Applicant requests that the Examiner reconsider the restriction requirement of the first action dated 3-13-2000 submitting that the Examiner has not canceled the unelected claims. The Examiner responds that unelected claims have been canceled as requested by amendment filed on 2-11-2000. The Applicant also requests reconsideration of the restriction submitting that unelected claims are different aspects of the same embodiment. The Examiner submits that as claimed, the species describe three distinct sub-systems belonging to different subclasses for use on the same system. The Examiner submits that each of the three said distinct sub-systems can theoretically operate separately. The Examiner also responds by stating that the Applicant fails to elect in the previous office action with traverse. The Examiner further submits that the Applicant fails to provide reasons for traversing of the said restriction after the first office action containing the

Art Unit: 2773

original restriction requirement. For at least the above reasons, the said restriction requirement remains standing.

The Applicant responds to the drawing objection by the Examiner. The Examiner withdraws the said drawing objection in the spirit of compromise. However, the Examiner reserves the right to requestor require that legends be added to some of all of the drawings.

The Applicant responds to the 35 USC 102 rejection of claims 1, 3, 4, 21, 23, and 24. The Applicant submits that fails to explicitly teach a video signal. The Examiner responds that teaching display output on video display translates into the teaching of requiring that a video signal is required for producing a video image. Applicant submits that McLaughlin fails to teach a video signal being sent back to the video processor. The Examiner submits that video signal can be interpreted as including any signal related to the input/output system related to the window operating system. Mouse input can be interpreted as a part of the video signal. The Applicant submits that the term "window manger" in claim 1 is because control buttons on the screen are only displayed and manage to do nothing. The Examiner responds that the input/output system which uses windows based display taught by McLaughlin allows for the use of a window system for managing the use of software applications stored in a computer system. The Examiner submits that any window driven system translates into a window manager.

The Applicant responds to the rejection of claims 2 and 22. The Applicant submits that the Examiner made use of hindsight when combining Fisher with McLaughlin. The Examiner responds stating McLaughlin teaches the use of a window (fig. 2). McLaughlin fails to teach that a window manager is an operating system. Fisher teaches that the windows control programs

Art Unit: 2773

known as OS/2 and windows which can be interpreted as windows managers are also operating systems (col 3, lines 53 -57). It would be obvious to one with ordinary skill in the art at the time of the invention to provide a window manager that is included in the operating system for the simplifying of application software development because doing so allows software writers to dedicate their time performing only those tasks which involve programming customization instead of learning to operate package software programs. The purpose of the windowing environment is to provide an environment where users including programmers can operate their computer systems using familiar tools. The use of such familiar tools allows computer users to spend more time performing productive tasks and less time learning the use of software tools that are considered tedious to operate.

The Applicant responds to the rejection of claims 3 and 23. The Applicant submits that McLaughlin fails to teach an application specific integrated circuit. The Examiner responds that the circuitry taught by McLaughlin in application specific in that all computer readable code stored in computer readable media is designed to only work on specific type of integrated circuits. Compilers and operating systems and other software programs are designed to be operated only on specific types of hardware.

The Applicant responds to the rejection of claims 11 and 31. The asserts that Priem fails to teach how to make a non-rectangular window. The Examiner responds by stating that the Applicant attempts to bring issues into the response to the rejection claims 11 and 31 which are not in the said claims. The Examiner asserts further that the display of non rectangular windows

Art Unit: 2773

also indicates that a sequence is present for displaying such window. All computer code used for producing output is a sequence.

The Applicant responds to the 35 USC 103 rejection of claims 2-11, 21-32, and 41-43. The Applicant states that since the independent claims are allowable therefore the rejection of claims 2-11, 21-32, and 41-43 should be withdrawn. The Examiner responds by stating that since Applicant of the rejection of the said independent claims have failed to traverse the rejection by the Examiner, the rejection of claims 2-11, 21-32, and 41-43 can not be withdrawn for that reason. Although the Applicant has made some attempts to traverse the use of secondary references cited by the Examiner, the Applicant fails to provide reasoning which is understandable to one with ordinary skill in the art.

The Examiner thanks the Applicant for providing a summary of the response.

Due to the above reasoning, the rejection of claims 1-12, 21-32, and 41-43 remains standing. The Examiner also rejects newly added claims 44-47.

12. Applicant's amendment fails to overcome rejection presented in the last Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

Art Unit: 2773

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Joseph whose telephone number is (703) 305-2277. The examiner can normally be reached on Monday through Friday from 7:30 pm to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim, can be reached on (703) 305-3821. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-6606.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

tjj/7-24-2000

228


RAYMOND J. BAYERL
PRIMARY EXAMINER
ART UNIT 2773